

SEMICONDUCTOR DEVICE AND METHOD FOR MANUFACTURING THE SAME

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This is a Division of Application No. 09/891,407 filed June 27, 2001. The entire disclosure of the prior application is hereby incorporated by reference herein in its entirety.

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BACKGROUND OF THE INVENTION

1. Field of Invention

[0001] The present invention relates to a three-dimensional mounting type of semiconductor device and a method for manufacturing the same.

2. Description of Related Art

10 [0002] In recent years, three-dimensional mounting type semiconductor devices, in which a plurality of semiconductor devices are stacked in layers, have been developed. Conventionally, the three-dimensional mounting type semiconductor devices include those in which semiconductor chips, that have been individually cut from semiconductor wafers, are stacked in layers, or those in which semiconductor wafers having chip-forming sections are 15 bonded together and then cut into individual segments.

[0003] However, in the former case in which semiconductor chips that have been individually cut from semiconductor wafers are stacked in layers, for example, positional alignment of the base semiconductor chips or the like is required, whereby the number of process steps is unavoidably increased.

20 [0004] Also, in the latter case in which semiconductor wafers having chip-forming sections are bonded together and then cut into individual segments, the semiconductor wafers to be bonded may include bad semiconductor chip forming sections. Even though locations of the bad semiconductor chip forming sections can be determined, it is unavoidable that the bad semiconductor chip forming sections are bonded because the semiconductor wafers are 25 bonded together. Accordingly, after the semiconductor chip forming sections are bonded together and cut into individual segments, the bad products must be separated from the good products. When the bad semiconductor chip forming sections are present in one of the semiconductor wafers to be bonded, bonded segments become bad products, and therefore the yield is unavoidably deteriorated.

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SUMMARY OF THE INVENTION

[0005] It is therefore an object of the present invention to simplify the manufacturing process and increase the yield.